

STUDIES IN THE EUPATORIEAE (ASTERACEAE) CCXXXIII.
NEW COMBINATIONS AND NEW SPECIES OF CENTRAL AND SOUTH
AMERICA.

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The completion of the generic treatment of the Eupatorieae has not ended the need for new combinations and new descriptions of members of the tribe. The following new combinations and new species belong to the various genera Ageratina, Barrosoa, Bartlettina, Cronquistianthus, Mikania, and Neocuatrecasia.

Ageratina celestini (Cuatr.) R. M. King and H. Robinson, comb. nov. Eupatorium celestini Cuatr., Trab. Mus. Nac. Cienc. Nat. Madrid, ser. Bot. 27: chart 12. 1934; 29: 15-16, fig. 2. 1935. Colombia.

The type of the species in Madrid has been seen and the species appears to be distinct from any others presently recognized from the Colombian Andes. The species is similar to others with fewer-flowered heads in the northern Andes such as Ageratina mutiscuensis (B. L. Robins.) K. & R., A. boyacensis, and A. pseudochilca (Benth.) K. & R., but the heads are distinctly larger, being 11-12 mm in height.

Barrosoa atlantica R. M. King and H. Robinson, sp. nov.

Plantae herbaceae perennes ad 1 m altae base decumbentes. Caules fulvi teretes leniter striati, internodis inferioribus 0.7-2.5 cm longis superne longioribus. Folia opposita, petiolis angustis 1.0-1.5 cm longis distaliter indistincte terminatis; laminae ellipticae vel oblanceolatae 3.5-7.0 cm longae et 0.7-2.3 cm latae base anguste acuminatae margine remote serrulatae vel integrae supra glabrae subtus pallidiores distincte glandulo-punctatae, nervis secundariis utrinque ca. 2 valde ascendentibus subtrinervatis. Inflorescentiae terminales elongate thyrsoidae in ramis elongatis distaliter cymosae, bracteis primariis foliiformibus 1-4 cm longis decreasentibus, ramulis ultimis 2-4 mm longis minute puberulis paucے minute bracteiferis. Capitula late campanulata ca. 5 mm alta et 4 mm lata; bracteae involucri fulvae eximbricatae oblongo-ellipticae 1.5-3.0 mm longae et 0.3-1.0 mm latae margine anguste scariosae superne puberulo-fimbriatae apice breviter obtusae interdum apiculatae extus bicostatae et mediocriter glandulo-punctatae; receptacula conica glabra submargine paucے anguste paleaceae. Flores in capitulo ca. 20; corollae albae ca. 3 mm longae, tubis cylindricis ca. 1.3 mm longis glabris, faucibus anguste campanulatis ca. 1.1 mm longis, lobis

triangularibus ca. 0.5 mm longis et 0.4 mm latis extus glandulo-punctatis; filamenta in partibus superioribus ca. 0.2 mm longa, cellulis distincte annulate ornatis; thecae ca. 0.9 mm longae; appendices antherarum oblongo-ovatae ca. 0.2 longae et latae. Achaenia ca. 0.7 mm longa glabra; carpopodia ca. 0.3 mm lata et 0.15 mm alta, cellulis elongatis; setae pappi ca. 40 plerumque ca. 1.5 mm longae apice leniter angustiores, cellulis apicalibus acutis. Grana pollinis in diametro ca. 20 um.

TYPE: BRAZIL: Rio de Janeiro: Mun. de Macaé, ±2 km da Lagoa Comprida, em brajo de Laplacea. Heliofila, crescendo em lugar que sofreu queimada. Capitulos brancos. 22.IX.1981. Dorothy Araujo 4598 et N. C. Maciel (Holotype GUA, isotype US). PARATYPE: BRAZIL: Bahia: Rod. p/ Nanuque (mun. Caravelas). Ereta, pouco ramosa, 1 m, capitulos alvos. Brejo. 19/6/1985. Hat-schbach 49488 and J. M. Silva (US).

The new species is distinctive in the elliptical leaf blades with cuneate bases and remotely serrulate margins. The species is also unusual in the genus by the lax, broadly thyrsoid inflorescence. The other species have a more strongly cymose form.

The distribution of the species seems to be along the Atlantic Coast from Rio de Janeiro northward to the southern strip of the State of Bahia. The species has not yet been found in the intervening State of Espírito Santo.

Bartlettina tamaulipana (B. L. Turner) R. M. King and H.

Robinson, comb. nov. Eupatorium tamaulipanum B. L. Turner, Brittonia 37: 374. 1985. Mexico.

The species was first interpreted by the present authors as a synonym of Bartlettina brevipetiolata (Sch.Bip. ex Klatt) K.& R. but additional material has now been seen from MEXICO: Hidalgo: Along Hwy 105 between Pachuca and Tampico, 27.2 mi S of Huejutla, 1.2 mi S of Quebradora, 0.9 mi N of Santa Maria; along edge of road and on rocky cliffs above road. 1315 m. Shrub 1.5 m; flowers white. 20° 58'N, 98° 34'W. Feb. 28, 1987. I. B. Croat and D. Hannon 65968 (MO, US). The new locality is to the south of the type locality in Tamaulipas, but both localities are reasonably close to each other on the eastern slopes of the Sierra Madre Oriental. Eupatorium xalapanum B. L. Turner, described at the same time, is still regarded as a synonym of Bartlettina brevipetiolata.

Cronquistianthus loxensis R. M. King and H. Robinson, sp. nov.

Plantae frutescentes 1-2 m altae mediocriter ramosae. Caules teretes appresse albo-tomentosi inferne tenuius tomentosi. Folia opposita, petiolis 1-2 cm longis; laminae triangulariter ovatae base late truncatae vel minime subcordatae in medio trinervatae et minime obtusae margine dense crenato-serrulatae apice acutae vix vel non leniter acuminatae supra cinereo-virides planae parse albo-tomentosae subtus dense albo-tomentosae. Inflorescentiae terminales dense corymbosae, ramis albo-tomentosis,

ramulis ultimis 0-1 mm longis. Capitula 5-6 mm alta et ca. 3 mm lata; bracteae involucri ca. 15 subimbricatae ca. 3-seriatae flavo-virides apice interdum minute rubro-maculatae plerumque oblongae vel lineares 1-4 mm longae et 0.7-1.0 mm latae apice breviter obtusae et irregulariter anguste scariosae extus tenuiter albo-tomentellae. Flores ca. 6 in capitulo; corollae albae ca. 3 mm longae, tubis et faucibus extus glabris, tubis ca. 1.2 mm longis, faucibus ca. 1.3 mm longis, lobis oblongo-ovatis ca. 0.4 mm longis et base ca. 0.3 mm latis extus dense puberulis et glanduliferis; filamenta in parte superiore ca. 0.3 mm longa, cellulis superioribus in parietibus leniter annulate ornatis; thecae ca. 0.8 mm longae; appendices antherarum oblong-ovatae ca. 0.15 mm longae et 0.17 mm latae. *Achaenia prismatica* 5-costata ca. 1.9 mm longa in costas et apices breviter spiculifera base angustioria; setae pappi ca. 40 plerumque 1.8-2.0 mm longae apice argute acutae. Grana pollinis in diametro ca. 20 um.

TYPE: ECUADOR: Prov. Loja: ca. 5 km SW from Saraguro, a rather dry slope near Puglia, alt. ca. 2800 m. A bush ca. 2 m high, heads whitish. 25.7.1979. Esa Heinonen 150 (Holotype GB). PARATYPE: ECUADOR: Loja: Entrance road to Parque Nacional Podocarpus, about 2 km before the gate. Disturbed, low forest. 2600 m. Shrub, 1 m. Flowers white. 30 Apr. 1987. H. van der Werff and W. Palacios 9205 (MO, US).

The white-tomentose stem and leaf undersurface are like *Cronquistianthus origanoides* (H.B.K.) K. & R., *C. nivea* (H.B.K.) K. & R., and *C. trianae* K. & R. of Central Ecuador and southern Colombia which were discussed by King and Robinson (1984). The new species is most distinct in its smaller heads. From various members of the group it differs further by the non-bullate leaves, the tomentellous involucres, and the lack of hairs inside the corolla. The white-tomentose pubescence also resembles that of *C. lopez-mirandae* (Cabrera) K. & R. of the Depts. La Libertad and Cajamarca, but the latter species differs most obviously by its very short pappus bristles.

***Mikania perhirta* R. M. King and H. Robinson, sp. nov.**

Plantae volubiles. Caules non fistulosi teretes grosse recte hirsuti, pilis 3-4 mm longis. Folia opposita, petiolis in foliis primariis ad 5 cm longis; laminae in foliis primariis longe triangulares 15-17 cm longae et 8.0-8.5 cm latae base leniter cordatae in medio base trinervatae et breviter obtusae margine integrae vel angulatae apice anguste caudato-acuminatae supra parse pilosae et pilosulae subtus in nervis patentiter et inter nervos parse pilosulae, nervis secundariis valde ascendentibus usque ad tertiam distalam attingentibus. Inflorescentiae in ramis terminales thyrsideo-paniculatae; bracteae primariae inferiores foliiformes in petiolis ca. 1 cm longae in laminis 5-6 cm longae et 1.5-2.0 cm latae, ramulis ultimis 1-5 mm longis erecto-patentiter pilosulis, bracteis subinvolcralibus in capitulis lateralibus ovatis ca. 4 mm longis et 1.5 mm latis persparse

puberulis. Capitula ca. 10 mm longa et ca. 3 mm lata; bracteae involucri 4 oblongae ca. 5 mm longae et 1.0-1.5 mm latae apice breviter obtusae extus sparse appresse tenuiter pilosulae. Flores 4 in capitulo; corollae albescens ca. 4 mm longae, tubis ca. 1.8 mm longis glabris, faucibus ca. 1 mm longis late campanulatis glabris, lobis ca. 1.3 mm longis et base 1 mm latis distaliter parse minute puberulis; filamenta in parte superiore ca. 0.25 mm longa base valde latioria ad 0.2 mm lata; thecae ca. 1.3 mm longae; appendices antherarum oblongae ca. 0.3 mm longae et 0.25 latae. Achaenia ca. 4 mm longa 5-costata in partibus inter costas parse minute puberula; setae pappi ca. 40 plerumque ca. 4 mm longae scabridae apice leniter latiores et densius scabridae. Grana pollinis in diametro ca. 20 μ m.

TYPE: BRAZIL: Espirito Santo: Rod. BR-262 (mun. Muniz Freire). Voluvel, capitulos creme. Orla mata pluvial. 5/12/1984. Hatschbach and J. M. Silva 48628 (Holotype MBM, isotype US).

The new species belongs to the Mikania banisterae group with solid stems and strong pilosity with no glands. The corollas also have the broadly campanulate limbs of the group. The hairs of the new species seem to be the most strongly spreading in the group. The leaves are also notable for their cordate bases and long slender tips.

Neocuatrecasia feuvereri R. M. King and H. Robinson, sp. nov.

Plantae suffrutescentes erectae ad 3 dm altae mediocriter ramosae. Caules teretes dense pallide hirtelli in parte rubrescentes. Folia opposita distincte petiolata, petiolis 4-12 mm longis; laminae triangulo-ovatae plerumque 1.2-2.8 cm longae et 0.9-1.7 cm latae base truncatae vel subcordatae in cuneis minutis mediis trinervatae margine duplo-crenato-serratae apice breviter acutae supra et subtus hirtello-pilosulae et glandulo-punctatae subtus densius punctatae et pallidiores in nervulis dense hirtellae. Inflorescentiae in ramis terminales pauci-capitatae, ramis ultimis ca. 3-5 mm longis dense puberulis et minute glandulo-punctatis. Capitula late campanulata ca. 9 mm alta et 7-8-mm lata; squamae involucri ca. 12 eximbricatae oblongae ca. 8 mm longae et 1.5-2.0 mm latae apice obtusae vel rotundatae extus minute puberulae et glandulo-punctatae. Flores 25-30 in capitulo; corollae albae ca. 5.0-5.5 mm longae, tubis valde constrictis ca. 1 mm longis extus glanduliferis, faucibus longe campanulatis 3.5-4.0 mm longis supra basem extus glabris; lobis ca. 0.7 mm longis et base 0.5 mm latis utrinque dense papillosis extus perpauce setuliferis et glanduliferis; filamenta in parte superiore ca. 0.35 mm longa, parietibus cellularum dense annulate ornatis; thecae ca. 1 mm longae; appendices antherarum oblongo-rotundatae ca. 0.2 mm longae et latae, cellulis in parietibus leniter distincte ornatis; basi stylorum in partibus brevibus hirsuti; rami stylorum mediocriter angusti dense papilloosi. Achaenia ca. 2.8-3.0 mm longa base vix prolongata plerumque in

costis dense scabridula inferiore et superiore longius scabridula; setae pappi ca. 40 persistentes ca. 2.5 mm longae base tenues et vix scabridulae apice non latiores sed scabridiores argute acutae. Grana pollinis in diametro ca. 23 um.

TYPE: BOLIVIA: La Paz: Prov. Bautista Saavedra, Chullina, am Weg in die Yungas, Nebelwald, Veg.-Aufn. 811, 3400 m. 28/4/1982. T. Feuerer 11469a (Holotype US).

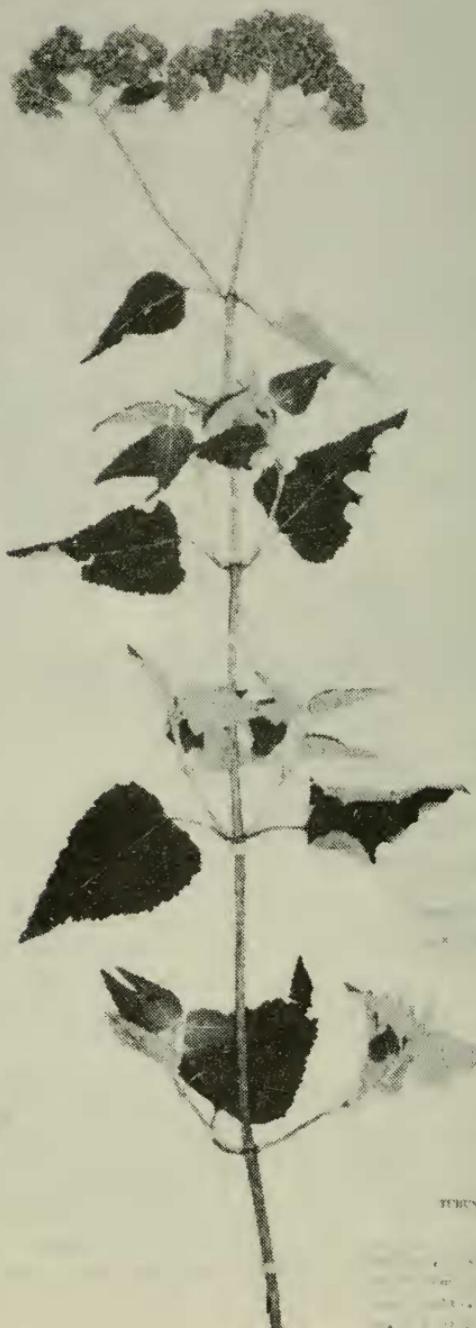
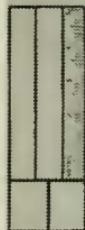
The distinctive features of the new species from other members of the genus include the dense glands on both leaf surfaces, the densely hirtellous leaf veins, the involucral bracts of nearly equal length, the 25-30 flowers in the heads, the nearly hairless corolla lobes, the small anthers in the long corolla throat, the short essentially non-stipitate achene base, and the pappus bristles with narrow scarcely scabrid bases. The narrow bases of the pappus bristles approach the condition seen in *N. sessilifolia* K. & R., but the leaves are not sessile. The new species seems closest to *Neocuatrecasia cuzcoensis* K. & R. of southeastern Peru. The new species is similar in habit except for the more subcordate bases of the leaves. The florets differ most obviously by the much longer throats, ca. 4 mm versus ca. 2 mm and by the narrowed bases of the pappus bristles.

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Barrosoa atlantica R. M. King & H. Robinson. Holotype, GUA.
Photos by Victor E. Krantz, Staff Photographer, National Museum
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Holotype, GB.



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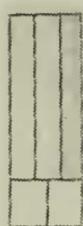
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Name author: Mikania perhirta R. M. King & H. Robinson
Family: Composite
Locality: USA, FLA., FLORIDA (from Loxahatchee Prairie) Sapirita
Date: 5/12/1980
Collector: G. S. Miller
Determiner: ...
Description: ...

JULY 2002 20000-100

Mikania perhirta R. M. King & H. Robinson. Isotype, United States National Herbarium.



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Neocuatrecasia feuuereri R. M. King & H. Robinson. Holotype,
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Bolbitis hemiotis (Maxon) Ching y Bolbitis pergamantacea (Maxon)
Ching (Lomariopsidaceae): Dos nuevos registros de helechos para
Veracruz, México

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Durante la elaboración de la lista de especies de pteridofitas presentes en el Estado de Veracruz, se observaron algunos problemas en la identificación del género Bolbitis, en particular, con ejemplares identificados como B. nicotianifolia (Swartz) Alston y un ejemplar identificado como B. hemiotis (Maxon) Ching. Se solicitaron ejemplares a otros herbarios y después de identificarlos, se llegó a la conclusión de que B. hemiotis y B. pergamantacea son nuevos reportes para el Estado de Veracruz, a la vez que se descarta la presencia de B. nicotianifolia en dicho Estado.

Bolbitis hemiotis (Maxon) Ching

Se caracteriza por presentar yemas o bulbillos, al menos, en las axilas de las pinnas superiores; pinnas usualmente alternas, asimétricas y herbáceas; segmento terminal de 19-31 cm de largo y de 7.5-13.5 cm de ancho; de 5-11 haces vasculares. Se le conocía con anterioridad para Venezuela y Trinidad (Hennipman, 1977). Es muy probable que ésta especie haya sido colectada en otros estados del SE de México y en Centroamérica, y que los ejemplares estén mal identificados.

EJEMPLARES EXAMINADOS: Mun. Catemaco, aprox. 1 Km al S de Bastonal rumbo a Arroyo Claro, vertiente N de la sierra de Santa Marta, acáhuatl con Cecropia, 920 m.s.n.m., Lira 103 (ENCB, MEXU, UAMIZ, XAL); Mun. Catemaco, sierra de Santa Marta, acáhuatl con Cecropia, 900 m.s.n.m., Palacios-Ríos 17a (XAL); Mun. Hidalgotitlán, brecha La Laguna-El Elefante, selva alta perennifolia, 150 m.s.n.m., M. Vázquez T. 851 (XAL); Mun. Hidalgotitlán, afluente W del Río Las Cuevas, + 5 horas a pie al S de La Laguna, selva alta perennifolia, 350 m.s.n.m., Wendt et al. 3847a (CHAPA, UC).

Bolbitis pergamantacea (Maxon) Ching

Se caracteriza por presentar sus pinnas una textura pergamantacea, con un tono glauco, sin bulbillos o axilas; segmento terminal + romboideo, de 15-45 cm de largo y de 6-20 cm de ancho; pinnas algo asimétricas con el lado basiscópico más largo que el acroscópico, el margen basiscópico convexo o sigmaideo; venas secundarias extendiéndose y terminando a cierta distancia del margen, de 9-20 haces vasculares. Se le conocía con anterioridad para México (Oaxaca y Chiapas); Centroamérica, Antillas Mayores, Venezuela y Colombia.

EJEMPLAR EXAMINADO: Mun. San Andrés Tuxtla, Estación de Biología Tropical Los Tuxtlas, selva alta perennifolia, 150 m.s.n.m., Calzada 7783 (XAL).

Con base en lo presentado en los párrafos anteriores, se descarta la presencia de B. nicotianifolia en el Estado de Veracruz, ésta especie no presenta ningún tipo de bulbillos o yemas. B. nicotianifolia fué citada por Lira & Riba (1984) bajo B. nicotianae-folia (Maxon) Swartz, como nuevo registro para Veracruz y México, basándose en el ejemplar Lira 103 (ENCB, MEXU, UAMIZ, XAL); sin embargo, éste ejemplar presenta, entre otras características, bulbillos o yemas axilares, por lo que se le ubicó bajo B. hemiotis.

AGRADECIMIENTOS

Se agradece al Dr. Alan R. Smith y al Dr. John T. Mickel, corroborar la identificación del ejemplar de B. hemiotis depositado en el herbario UC. A Ellen Dean su apoyo en la parte bibliográfica y al Dr. Victor Rico-Gray la revisión del manuscrito final.

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